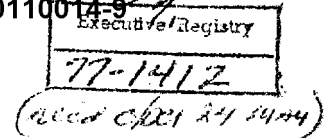


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OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301



May 20, 1977

Admiral Stansfield Turner  
Director  
Central Intelligence  
Langley, Virginia

Dear Admiral Turner:

When we met at your request several weeks ago I reviewed for you very briefly the extensive study, in which I have been involved, of the development of the United States and Soviet strategic forces since World War II. I expressed a number of opinions concerning the performance of the intelligence agencies during this period and you requested that I commit those to writing even though an assessment of intelligence was not formally included in the charter of the study. The attached memorandum is my response to your request.

The memorandum lists a number of serious defects which I have perceived in contemporary intelligence analysis and makes six recommendations for improvement, but neither the indictments nor the recommendations can be properly understood in my opinion without some appreciation of the very complicated interactions between historical events, advanced technology, institutional arrangements, and human uncertainty which brought the intelligence community to its current state. In an attempt to convey this point and to control potential resonance with immediate political events I have made the memorandum somewhat longer and more theoretical in character than the usual staff document. There is, however, a bottom line which can be stated by three propositions: 1) current intelligence analysis of the Soviet strategic posture is dangerously superficial; 2) because of the way in which intelligence production is organized the available data base is not being used to anything near full potential; 3) the chances are uncomfortably great that the entire spectrum of opinion within the intelligence and broader policy community shares a fundamental misunderstanding of the genesis and character of the Soviet threat.

The memorandum reads more powerfully, of course, in the context of the detailed substantive discussion included in the draft strategic forces history. Regrettably, a full draft of the history is not yet available, even though some individual chapters are now undergoing critical review. The OSD Historian's office is sending one chapter on more recent Soviet strategic force developments to the CIA for review (through the DDI). Though the current draft of that chapter obviously does not reflect the improvements which reviewers' criticisms are intended to induce, it nonetheless does provide a detailed, substantive basis for the opinions I have expressed.

Upon removal of attachments

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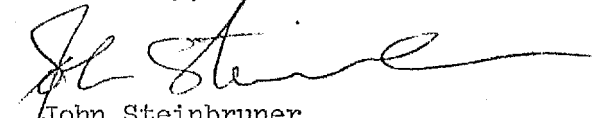
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This brings me, however, to some difficulties of procedure. I cannot ask you to be a reviewer for our study, nor can I officially submit to you an unfinished draft, nor do I have reason to suppose that you want my personal opinions in exhaustive detail. For these reasons and because its content seems likely to be controversial -- the reviewers will have plenty to say -- it does not seem appropriate to me (or to my colleagues) to send you the draft chapter in support of the memorandum. You can, I believe, read whatever you want at your own initiative, but there is an important distinction between that and my urging something upon you.

I hope my efforts will be helpful to you. I do not want to add to the political excitement over intelligence matters or to the tendency to float casual, unrealistic prescriptions. You have inherited some very difficult and extremely important problems, which urgently demand sustained, penetrating managerial attention, and I wish you the best of luck.

Sincerely,



John Steinbruner  
Consultant

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May 20, 1977

MEMORANDUM

SUBJECT: Insights Gained from the Study of Strategic Arms Competition  
Into the Problem of Intelligence Management

FROM: John Steinbruner

Though the terms of reference of the study precluded a formal history of strategic intelligence, that topic has been so central to the interaction between the United States and the Soviet Union that we could not avoid developing a great deal of information about it. What we have seen tends to support some familiar criticisms of the contemporary intelligence process. The analytic capabilities of the intelligence agencies are not commensurate with the sophisticated methods of collection which have developed over the past decade, or with the capability for interpretation of technical data which has developed in the private sector.

The agencies appear to be dominated by immediate questions of current intelligence which are too narrowly defined to reach fundamental issues. Analysis of major strategic problems tends to proceed in piecemeal fashion, and does not systematically or in sufficient detail integrate across information regarding different dimensions of the Soviet strategic effort or across extended periods of time. Analysts interact with the collection agencies providing raw information -- with photointerpreters for example -- only sporadically and unsystematically, and as a result information is lost and analytic leverage is foregone.

Classified by OSD Historian  
Subject to General Declassification  
Schedule of Executive Order 11652  
Automatically downgraded at two  
Declassified on 31 December 1985

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- 2 -

In the course of conducting the study we have several times raised answerable questions of considerable analytic significance concerning the interpretation of past observations, only to discover that such questions could not be handled under current organizational arrangements. Because of the nature of strategic weapons developments, technical observations made 10 and 15 years ago frequently remain highly pertinent; indeed such observations can have far greater utility now than they did at the time they were made. Such information is not being systematically used or even organized for use. Files are purged so mindlessly -- or perversely -- that venturesome analysts who seek to look beyond the present and immediate past are rewarded with frustration. Though there are and always have been glaring, debilitating (but probably inevitable) holes in the raw data base for strategic intelligence, the information which has been accumulated is not being utilized to anything like its full potential.

The support which the study might give, however, to a familiar list of indictments is not as important in my opinion as the insight it can produce as to how the current situation came about and what might be done about it. In the hope of providing something constructive, I offer the following analysis which emerges both from the substance of the strategic arms competition history and from the experience gained in conducting it:

1) The Nature of the Problem and its Implications

At least since the end of World War II, the United States has not been able to secure systematic, direct, authoritative information from the Soviet decision process on matters of technical design, production, deployment, and operation of strategic forces. The information of this sort that has

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- 3 -

been obtained has been too sporadic and too limited to provide the primary basis for analysis. As a consequence both the actual capabilities and the underlying purposes of Soviet strategic forces must be estimated by inductive inference from information derived from a great variety of sources ranging from discreet technical observation of deployed systems to very general treatises on strategic doctrine and military history. Most of the available information has indirect and distant relationship to the central decision processes of the Soviet government, and inference can proceed only by long and inherently hazardous chains of reasoning. Realistically, we must expect that these conditions will continue to prevail and that the strategic intelligence problem will continue to be a matter of making elaborate inductive inference.

There are two consequences of this situation whose importance it would be very difficult to exaggerate. First, analysis of Soviet strategic programs is extraordinarily influenced by the framework of assumptions applied, without which any analysis would be logically unmanageable. Second, the only available means of bringing serious empirical discipline to intelligence analysis is to test inductive interpretations across evidence of very different character. The serious mistakes in intelligence analysis made during the postwar period and the malaise which now affects the intelligence agencies have a great deal to do with the way in which these two principles have worked out in the course of recent history.

2) Experience of the Last Two Decades

When full scale deployment of modern strategic weapons was beginning in the late 1950's, the American intelligence community as compared to the

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present was technically primitive but organizationally rather vigorous. Caught up in the intense political and scientific reaction to the Sputnik satellites, American intelligence analysts were deeply uncertain about the size and technical character of the then current Soviet deployments. They were running scared and working hard on a relatively meager data base.

As a result of the reaction to Sputnik, the presumption was established in the American intelligence community that in order to support a world-wide projection of political power the Soviets were engaged in large and rapid deployment of strategic missiles directed against the United States -- an assumption which proved to be incorrect for that period of time and which generated overestimates of the rate of Soviet deployment. From early 1958 through mid-1961 working analysts, using data from a wide variety of sources, gradually pieced together an accurate picture of actual Soviet deployments. The availability of information from overhead reconnaissance gave critical support to the more accurate assessment enabling a consensus in the community against the previous assumption -- but the reconnaissance information was only one element of a more broadly based analysis. During this period, working level analysts had full and systematic access to information of all types, interacted on a day-to-day basis with the collection agencies and photointerpreters, and had direct access to members of the intelligence board. Members of the board were informed in great detail and provided intellectual discipline, and even inspiration, for the working level analysts.

Under this organizational condition, the clearly articulated, generally accepted but incorrect assumption about the Soviet program -- which drove

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- 5 -

very rapid and large-scale American strategic deployments during its period of hegemony -- had a strong stimulating effect on the intelligence agencies. The factual errors it generated were corrected with analytic effort and the assumption itself was enough discredited to end its role as the central focus of analysis. The interpretive error was self-liquidating, but so was the stimulative effect.

By 1963-64, after a transition period, several trends set in which gradually changed the basic posture and internal operations of the intelligence agencies:

1. The product of satellite technology rendered the central question of the Sputnik period -- the size of current Soviet strategic forces -- a matter of routine certainty (relative to most other questions) requiring little effort from intelligence analysts.
2. A major battle between the Air Force, CIA and OSD over the control of reconnaissance operations resulted in the creation of NRO as a separate organizational channel.
3. Rapid increases in the technical sophistication of satellites and other collection devices began to generate a large volume of very sophisticated information -- much of it highly technical in nature -- and in addition stimulated highly compartmentalized internal security procedures designed to protect the collection devices. This effect was magnified by the fact that the scale of Soviet activity amenable to technical observation was expanding dramatically.
4. The generation of intelligence analysts engaged in strategic intelligence during the late 50's became older. Their career

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- 6 -

advancement required that they be moved into managerial positions. They were. New positions were created and the managerial hierarchy became deeper. Those recruited to replace them as working analysts were given more specialized assignments, were further removed from policy levels, and did not interact on a regular basis with the collection agencies.

5. The highest officials of the agencies and the policy levels of government gradually developed preoccupations with other issues -- Vietnam, covert operations, and other questions not involving strategic assessment. Their demands for current intelligence kept analysts working within a very narrow time horizon.

All of these trends retarded the development of analytic capability within the agencies. Though analysis of the simple questions of the force balance improved because of the increasing quality of basic information, the capacity for intelligence production did not increase in sophistication to match the expanding data base. The basic product -- assessment of the static, momentary balance -- was routinely produced and neither historical understanding nor future projection was pursued very systematically.

By 1965 a new assumption about the Soviet strategic program had been established, not as powerfully as the one which dominated the Sputnik era but well enough to act as a focus for analysis. This assumption, which also proved to be incorrect, held that the Soviet ICBM program then obviously under development would peak roughly at the level of 700 launchers giving them an assured destruction deterrent force but avoiding further stimulation

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- 7 -

to the U.S. strategic forces. This assumption led to the recently discussed errors in projections of the Soviet land-based missile force. \* In fact, in the wake of the Cuban missile crisis (1963-65) the Soviets had already programmed a strategic missile force somewhat larger than that of the United States, since part of it was intended to cover peripheral missions. This error was also corrected, but without great effort from intelligence analysts. The actual size of the construction program became operational, and estimates were updated to keep current force level assessments accurate -- as best we can now judge -- throughout the 1960's and continuing to date. Because of the change in organizational conditions the stimulating effect which a clear and logically appealing (but inaccurate) conception of the Soviet program had in the late 1950's did not occur in the late 1960's.

### 3) The Current Situation

Since the Moscow treaty in 1972 the central focus of strategic analysis, to the extent that one exists, has been in SALT verification, but the logic of mutual assured destruction which underlies the treaty has not been generally accepted. Though it is notoriously hazardous to read trends in current events, it does appear that the deployment of multiple warhead systems on large throw-weight missiles and the demonstration of advanced guidance principles which work to increase accuracy are generating a new presumption

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\* The 5-7 year projections of this period which turned out to be in error regarding the ICBM component of the Soviet forces went beyond the horizon provided by satellite observation. Launch sites could be observed under construction up to two years before they became operational. Five to seven year projections involved estimates of Soviet programming decisions which were not directly observed.

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that the Soviet program is designed to support the projection of political power by an impressive counterforce capability against Minuteman silos. Though such drifts of consensus are powerful enough to have an aura of inevitability about them, it is worth issuing a few warnings:

a) Like the general conceptions of the Soviet program which have enjoyed periods of dominance in the past, the current formulation derives from American strategic thinking, and the chances that it is not an accurate characterization of the Soviet decision processes are very great. Indeed, a historical analysis of the Soviet strategic program which we have undertaken provides evidence that it is incorrect, that the Soviets envisage counterforce operations of very different character.

b) The stimulating effect of an inaccurate but intellectually compelling conception is unlikely to occur in the current organizational context. Given their weakened analytic capability, the intelligence agencies are not prepared to conduct the penetrating systematic analysis across different kinds of evidence and extended periods of time which is necessary for a productive empirical test. The analysts appear likely to be driven by reasonably narrow technical channels pumping in information from the Soviet R&D programs, and this information when detached from broader context and historical background is likely to sustain the current conception.

c) The stakes appear to be reasonably high since the American system, more like 1958 and less like 1965, appears to be primed for reaction with major, technically feasible weapons programs waiting deployment decisions. A misunderstanding at this point could transform the strategic situation before interpretive errors could be corrected.

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4) What Might be Done

Impressionistic as it is, the foregoing analysis does suggest some means for pursuing improvements in the analytic capabilities of the intelligence agencies, and these might be advanced with the same caution and tentativeness as the other observations:

a) Competitive Interpretation

One can hardly reflect on the history of strategic intelligence over the past two decades without concluding that at least in principle alternative interpretations of the Soviet strategic program ought to be set up in competition in order to secure more penetrating analysis of available information. On one hand, analysts are dependent upon some clear conception of the Soviet program in order to bring structure to the highly disparate and uncertain base of information, but on the other hand the conceptions of the past which have achieved sufficient internal clarity and sufficiently widespread acceptance to perform this function have proven to be in error. It is natural to hope that the stimulating effect could be achieved -- even enhanced -- and the risk of serious error diminished if opposing interpretations were advanced for testing against the base of evidence.

It must be conceded that the recent competition between Team A and Team B in the preparation of a National Intelligence Estimate is likely to be perceived as a negative precedent for the principle of competition. The grief that exercise caused had to do with peculiarities of the way it was implemented, however, rather than with the workings of the principles of competition itself. Team B did not attempt a constructive interpretation

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of the Soviet program but rather an indictment or cross-examination of the official estimate. Given the press stories, the general context of the times, and a few of the personalities involved, that procedure constituted political attack rather than fruitful intellectual competition in the face of uncertainty. Clearly a competitive process must be so managed that both sides are subjected to the same rules and the contending parties accept the legitimacy and constructive intention of the opposing arguments. The Team A/Team B Exercise should be understood as a management failure, not as proof that constructive competition is impossible.

b) Loosening Constraints at the Working Level

The process of subjecting any interpretation to systematic test against available evidence is inherently laborious and cannot occur if analysts are constantly driven from topic to topic on short time cycles. It cannot occur if working level analysts are held within narrow areas of specialization or if they are restricted to current evidence. It cannot occur if the better internal analysts are quickly promoted into managerial positions where they lose direct touch with evidence. The working conditions of at least some analysts will have to be changed if the product is to be improved, and that means in turn that managers will have to learn to make much more sophisticated manpower allocation decisions than they have made to date.

c) Development of the Method of Force Deployment Programming

The evidence developed in conducting the strategic arms competition study derives from an analytic method which appears to have considerable promise and which presumably could be made even more powerful if done on a

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sustained basis within established channels. The method, which presents a comprehensive account of deployment activities with timing specified down to the month, does seem to define critical points of decision very clearly. The systematic disaggregation involved provides an important supplement to force structure tabulations and to the analysis of the technical characteristics of specific weapons systems. If interactions between at least some working analysts and the collection agencies were allowed, it is likely that the method would stimulate more precise interpretation of basic observations. The method should be developed within the intelligence agencies.

#### 5) Intelligence on Force Operations

As recorded in the strategic history, the appearance in the Soviet Union of a very large, fully deployed intercontinental range strike force with associated organizational arrangements necessary to provide real military capability is a relatively recent phenomenon. The sudden, vastly destructive war -- which has been popularly imagined throughout the nuclear era to occur on a time scale of minutes or hours -- has become organizationally feasible only in the last five to seven years. As a result of this development, intelligence on strategic force operation has become a far more significant problem.

Though the importance of the topic has always been recognized in principle, both the fact that directly pertinent information has been particularly inaccessible and the relatively low level of the Soviet alert posture have inhibited the development of analysis in this area even more than in the case of the development and deployment cycle. In the Cuban crisis in 1962 the movement of missiles and construction crews to points

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Approved For Release 2005/01/10 : CIA-RDP80M00165A001800110014-9

- 12 -

of embarkation in the Soviet Union, if observed at all, was not interpreted for what it was. Similarly the recent exercise of the Northern fleet was not recognized in preparation but only after the task forces appeared at sea and began their operations.

More detailed understanding of Soviet strategic force operations does appear to be possible even without a dramatic breakthrough in access to information. It will not occur, however, without an increase in emphasis from managerial levels, and probably not without some reallocation of intelligence collection resources. The analysis of strategic force operations is likely to require a redesign of coverage and the development of new lines of analysis. Such things cannot be done on a crash basis by an ad hoc task force under the stimulation of crisis conditions. It would be wise to begin the effort before an immediate, compelling need arises.

#### 6) Substantive History

Though the intelligence agencies have produced a large number of historical accounts of their own operations, they have not produced substantive histories. In particular they have not developed -- and under current arrangements will not develop -- a detailed substantive history of the Soviet strategic program. Since the pertinent data base is largely classified, this neglect is not offset by the academic community. Not only does this weaken the analytic product of the intelligence agencies over what it might otherwise be but it also means that fundamental understanding of the Soviet Union's strategic effort in the United States as a whole may erode over time rather than improve. It seems obvious that serious, continuing historical analysis based on the classified data base

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should be institutionalized. Whatever the merits of the study we have completed it cannot substitute for sustained historical analysis.

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